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ABSTRACT

This paper examines 100 years of study of managers and leaders. The paper is divided into five distinct eras, with a color scheme providing a metaphor for each period. The five periods and their dates are: (1) Management Foundations, 1886-1916, when the first call was issued for a systematic study of management; (2) Rollercoaster Economy, 1917-1945, in which the economy went from boom to bust; (3) Bureaucracy, 1946-1961, the second world war made the world safe for bureaucracy; (4) Challenges to Authority, 1962-1979, in which there were numerous challenges to authority through, for example, the hippie counterculture and the civil rights movement; (5) Global Economy, 1980-present, which recognizes that the manager's job has changed to compete in the global economy. For each of the eras the external environment, the organizational environment, perspectives on the manager's job, and psychological applications are examined. Four conclusions are described in these categories: psychological perspectives accumulate across time; perspectives amplify; psychologists' perspectives await the times; and psychological perspectives advance in crisis. (ABL)

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ORGANIZATIONAL LEADERS AND MANAGERS:

HISTORICAL AND EMERGING PERSPECTIVES

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Development Dimensions International

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

We've given ourselves the impossible task of covering 100 years of study of managers and leaders in 45 minutes. To make matters worse, management is a multi-disciplinary field. Psychologists' perspectives are intertwined with those from engineering, business, and the social sciences. Even within psychology, the topic is multi-disciplinary. Industrial-organizational psychologists have taken the lead, but the field has been deeply enriched by many psychological specialties. Another problem is that the flow of ideas about management and leadership has been channeled by the external environment and the times. To understand managers and their work, we must consider their challenges, their resources, and their constraints.

To organize our remarks, we'll introduce each time period with some highlights about the external environment -- the nature of the American economy, the state of technology, and the social and political climate. Then we'll describe the organizational environment, including the nature of work, characteristics of the labor force, and how workers and managers were organized. Next, we'll discuss perspectives on managerial work -- mostly those of psychologists, but also from others who significantly influenced psychological views. We consider leadership a part of what managers do. Management involves the coordination of human and nonhuman resources toward the accomplishment of organizational goals (Duncan, 1989), and leadership encompasses the personal influence side of that function. For the last theme, we'll discuss psychological applications. These concern the selection and development of managers, including formal education.

To cover those four themes across 100 years, we obviously must paint with a very broad brush. We've redrawn American history into 5 distinct eras, with a color scheme providing a metaphor for each period. We'll begin with **Management Foundations**, laid down in the period between 1886 and the first World War. The **Rollercoaster Economy** covers both world wars, with the Depression in between. **Bureaucracy** characterizes the period after World War II through 1961. The 1960s and 1970s brought **Challenges to Authority**, while our immersion in the **Global Economy** has been recognized since about 1980.

Management Foundations (1886-1916)

First, why do we begin in 1886? Management and leadership have existed for thousands of years -- how else would the pyramids have been built? But it wasn't until 1886 that the first call was issued for the systematic study of management (Duncan, 1989); this occurred at a meeting of ASME, the American Society of Mechanical Engineers. The color metaphor for this era is green, which represents newness. It also suggests power -- being able to manage and direct events -- and an autocratic temperament (Lűscher, 1969), which was common in these early days of industry.

External Environment, 1886-1916

At the turn of the century, the largest percentage of the labor force, 42%, was still engaged in agriculture (see Figure 1). The rest were almost equally divided between goods-production (28%) and service-production (30%) (Census, 1975). The latter includes such things as government, transportation, wholesale and retail trade, and finance.

The basic infrastructure of railroads, telegraph, and telephone was in place, permitting distribution of goods and services on a national scale (Chandler, 1977). Streams of immigrants, mostly from Southern and Eastern Europe, passed through Ellis Island to find work in American factories. Government interfered little with business until 1901, when President Teddy Roosevelt ushered in the Progressive Era, intent on social and economic reforms (Wren, 1987).

Organizational Environment, 1886-1916

Manufacturing depended on crude iron and steel machinery, gradual development of interchangeable parts, division and specialization of labor, and continuous process assembly. After Henry Ford adopted the moving assembly line in 1914, the time required to put together a Model T declined to 10% of what was formerly needed (Braverman, 1974). Specialization and automation meant that most factory jobs consisted of small tasks that unskilled immigrant workers could readily perform. Wages were low, and child labor was a common practice to help families make ends meet. Conditions were harsh in the factories (Nelson, 1975), and the average work week was 60 hours in 1890 (Robertson, 1973).

In the spirit of Progressivism, welfare work or so-called "industrial betterment" moved into the factories to improve workers' lives (Nelson, 1975; Rodgers, 1978). Welfare secretaries instituted recreational, educational, and health care activities that were paternalistic and often intruded into workers' personal lives (Gilson, 1940). However, these efforts laid the foundations for personnel departments (Eilbert, 1959; Jacoby, 1985).

In 1900, manual laborers constituted over 1/3 of the work force (see Figure 2), second only to farm workers. Managers represented less than 6% of the work force, and other white collar workers a little over 11%. Women constituted only 18% of the total work force, and they were almost completely unrepresented in management -- 4.4% (Census, 1975).

Perspectives on the Manager's Job, 1886-1916

At the turn of the century, 4/5 of the Chief Executive Officers, or CEOs, were the first to head up their companies (Newcomer, 1955). This was an age of risk-taking, dynamic entrepreneurs (Josephson, 1934). Many entrepreneurial CEOs were well known, and exhibited our green theme of pride, persistence, and superiority (Lűscher, 1969).

Middle management was relatively undeveloped (Chandler, 1977), and authority over the workers was concentrated at the bottom of the managerial hierarchy. Foremen could hire, set wages, discipline, and fire, and they did so with unfettered license (Jacoby, 1985). Here, again, is the green theme of power and autocracy (Lűscher, 1969). First-line management methods were known as the drive system. Foremen used profanity, threats, abuse, and scare tactics to encourage more work. Because immigrant laborers were abundant, foremen fired them recklessly and hired others as replacements (Jacoby, 1985; Nelson, 1975).

The workers protected themselves by withholding their labor and slacking off when they weren't being watched. The inefficiency of this system is what engaged the engineers at the 1886 ASME convention (Duncan, 1989). In attendance was Frederick W. Taylor, who had observed

the deliberate restriction of labor, called soldiering. Taylor went on to develop what became known as scientific management. Through time study, he analyzed each element of work to find the "one best way" of performing a job and to establish a fair day's work and pay (Nelson, 1980; Taylor, 1911).

Taylor identified nine qualities of a well-rounded foreman -- brains, education, technical knowledge and manual skills, tact, energy, grit, honesty, judgment or common sense, and good health. He thought that locating one individual with these qualities would be almost impossible; as an alternative, he recommended eight functional foremen, each a specialist with functional authority over a task. There was a speed boss, a repair boss, an inspector, a time-and-cost clerk and so on. However, this system mitigated against developing well-rounded managers to run a shop (Wren, 1987).

Taylor was accused of having a naive engineer's view of human beings, but a psychologist in the scientific management fold called attention to psychological factors (George, 1972). Lillian Gilbreth worked with her husband Frank on motion study. She finally received her Ph.D. in 1915, despite being denied the degree at the University of California because of a residence technicality, and having to write a second dissertation at Brown. Her first dissertation was published in book form with the proviso that she give her name as L.M. Gilbreth so as not to identify her as a woman (Wren, 1987).

In her classic volume (Gilbreth, 1914), Lillian Gilbreth argued that managers needed psychological knowledge in order to give and receive information, which she considered a large part of their job. She wrote that management signifies the relationship between the managing and the managed in doing work -- a progressive view that would be rediscovered later. Unfortunately, Lillian Gilbreth drifted toward industrial engineering rather than industrial psychology; some women are seriously misled by following their husband's work, although surely not every woman!

Psychological Applications, 1886-1916

The proponents of scientific management recognized a potential payoff from both selection and training (Gilbreth, 1914). But applied psychology was just getting established during this period, and scientific selection and training methods were wanting. Entrepreneurs selected their successors through family ties or by their own impressions. Andrew Carnegie put Charles Schwab on the fast track to the presidency of his steel company after the young Schwab made a favorable first impression by learning to sing and play Carnegie's favorite tunes on the piano (Sloat, 1979).

Various forms of pseudo-psychological selection methods appeared, such as character analysis or physiognomy. One popular treatise recommended that managers be mental types. A large head and triangular face supposedly indicated that the brain and nervous system were highly developed, and that such an individual would be unhappy doing physical labor (Blackford, 1916).

Hugo Munsterberg, cited by many as the father of industrial psychology, introduced the idea of scientific methods of selection in 1909. His initial effort to select managers was

stimulated two years later, when he was asked by the New York director of the Hamburg-American shipping line to develop a test to eliminate incompetent ship captains. Munsterberg's test, oriented toward rapid decision-making, consisted of a set of cards with 28 random vowels arranged in 4 columns. The candidate had to sort them as quickly as possible into 4 piles depending on whether A, E, O, or U predominated. An independent attempt to replicate his experiment showed not only that good decision makers often scored low, but that the highest scorer was a woman. This was considered a crushing blow to the test (Hale, 1980).

Management was generally considered an art that was not subject to formal study, and managers were expected to learn on the job (Gilbreth, 1914). Early business schools, established during this period, covered practical subjects such as accounting and commerce; they were non-intellectual, sometimes anti-intellectual (Hofstadter, 1962). About 1/2 of top executives in 1900 attended college, but they did so primarily for social reasons, not to learn the techniques of business (Newcomer, 1955).

Rollercoaster Economy (1917-1945)

The economy went from boom to bust to boom between 1917 and 1945 -- what we call the rollercoaster economy. The color metaphor transitions from red to brown and back to red. Red signifies a vital force and will-to-win, which portrayed the American spirit during both world wars. Red also stands for enterprising productivity, which was characteristic of the war economies as well as the prosperous 1920s. Brown is a symbol of insecurity and discomfort (Lűscher, 1969), the conditions of the Depression of the 1930s.

External Environment, 1917-1945

World War I -- which begins our first red period -- was fought to "make the world safe for democracy." By this time resources had accumulated and technology had advanced significantly (Chandler, 1962). Automobiles, trucks, and airplanes provided speedy transportation, or so people thought. Machinery replaced people on the farm, and by 1920, as shown in the second column of Figure 1, they left the agriculture sector (now claiming 25%) for the goods-producing (33%) and service-producing (38%) sectors of the economy (Census, 1975). Restrictive laws in the 1920s nearly halted immigration, and the labor force settled down (Jacoby, 1985).

The booming 1920s economy over-heated, and the stock market crash of 1929 plunged us into the Depression. The unemployment rate -- only 3% in 1929 -- rose to nearly 25% in 1933 (Census, 1975). Americans lost faith in capitalism, and the government searched for a course correction.

President Franklin Roosevelt's New Deal had a significant impact on business practices. The Wagner Act of 1935 gave employees the right to unionize to bargain collectively. The Fair Labor Standards Act in 1938 guaranteed a minimum wage and outlawed child labor. The Depression and resulting social legislation also demarcated a cultural attitude shift -- away from ambitious individualism and towards a social ethic and search for protection and security among other people (Wren, 1987).

World War II finally ended the Depression. Our red theme returns, with a new will-to-win, and productivity on a scale grand enough to redeem the capitalistic system.

Organizational Environment, 1917-1945

The factories spewed out so many goods in the 1920s that business began to shift its emphasis from production efficiency to sales (Wren, 1987). Entrepreneurs represented only 20% of CEOs in 1925, and families were yielding their power to professional managers (Newcomer, 1955). Even in the family-dominated E. I. DuPont de Nemours company, no DuPont served on the executive committee of the company who wasn't an experienced manager (Chandler, 1977).

True to the emerging social ethic, business leaders became less independent, while workers looked to the unions for collective action (Wren, 1987). Union membership multiplied rapidly after the Wagner Act, growing from less than 3 million in 1933 to more than 8 million in 1938 (Census, 1975). Unionization often brought strikes, such as the sit-down action at the Fisher Body plant in 1937. The foremen's power to set wages and working conditions eroded during the 1930s, after higher managements realized that meeting government regulations and dealing with the unions called for an organized, professional response that a personnel department could offer (Jacoby, 1985).

Perspectives on the Manager's Job, 1917-1945

Management theorists gave close scrutiny to authority relationships during the rollercoaster period. Wasn't the war fought for democracy? Why not democracy in the work place?

In 1920, sociologist Max Weber identified three bases of legitimate authority -- traditional authority based on custom, such as a patriarchy; charismatic authority, which depended on personal magnetism; and legal-rational authority based on formally enacted rules. Bureaucracy was considered the archetypical case of legal-rational authority that operated from the top down (Parkin, 1982; Weber, 1947). But others questioned the top-down approach.

Mary Parker Follett, a political philosopher, stimulated the thinking of both business executives and psychologists during the 1920s and early 1930s. Influenced by Gestalt psychology (Wren, 1987), she emphasized the whole of the work organization and stressed that the interrelated parts must pursue common goals. Follett believed an artificial line was drawn between those who manage and those who are managed, whereas common interests and unity of purpose should be paramount. She recommended "power with" instead of "power over", and "coaction" to replace coercion and consent (Metcalf & Urwick, 1941).

Chester Barnard, President of New Jersey Bell, advanced his acceptance theory of management in 1938, whereby authority is vested in people willing to be controlled (Barnard, 1938). Thus, he saw authority moving up the organization rather than down (Duncan, 1989).

Meanwhile, psychology was increasingly seen as offering potential contributions to management. David Craig stated that over 9/10 of managing is accomplished orally, and

managers must get along with the human beings around them (Craig, 1923). That same year, John Williams, an engineer in the scientific management tradition, proposed that the Taylor Society invite Walter VanDyke Bingham to arrange a program for their next meeting (Notes, 1923). Bingham, one of the pioneers of industrial psychology, directed the Division of Applied Psychology at the Carnegie Institute of Technology. The various Carnegie bureaus were considerably more involved with salesmanship than with management (Kraus, 1986), which accorded with the consumption-oriented interests of business in the 1920s. Bingham noted that answering questions about leadership would require major research comparing successful and unsuccessful leaders -- research which was not yet at hand (Bingham, 1927).

Most theorizing about leadership in the 1920s and 1930s tried to pin down the traits of leaders. Craig and Charters conducted personal interviews to determine the characteristics of successful minor executives. These qualities were identified as intelligence and skill, forcefulness, teaching ability, strength, kindness, fairness, and sensitivity to the feelings of followers (Craig & Charters, 1925).

F. A. Kingsbury provided a better-developed rationale, in which he divided executive functions into making plans and directing people to carry out those plans. To make plans the executive needed a good understanding of his business and a good grade of intelligence; to direct people carrying out the plans he needed social aptitude to understand people, and what Kingsbury called dynamic qualities, such as forcefulness, decisiveness, and drive (Kingsbury, 1933).

E. K. Strong consolidated traits proposed by different authors into a formidable list of 20. "Anyone possessing all of them in considerable degree would be a 'great deal of a man,' if not a superman," he wrote (Strong, 1938).

The trait approach might have benefitted from attending to the theories of Henri Fayol, a French executive who offered the first complete theory of management (George, 1972). His writings, from 1916, were not translated into English until 1927 nor circulated in the U.S. before the 1930s (Cochran, 1977). Fayol laid out principles of how to manage and identified five management elements or functions, including planning, organizing, commanding or motivating, coordinating, and controlling. He claimed that the functions were universal, and managerial skills transferable (Fayol, 1949). This commonality made viable the idea of training and developing general managerial skills.

Psychological Applications, 1917-1945

Psychological applications significantly advanced during World War I. Walter Dill Scott, another pioneer in industrial psychology, led a group that developed a variety of tests and rating procedures, including those for officer candidates (Scott, Clother & Spriegel, 1949). Following the war, both the Scott Company and the Psychological Corporation were formed to offer testing services to the business sector (Hilgard, 1987).

Robert Yerkes headed a group that developed the Army alpha and beta tests of intelligence. The Army alpha revealed an orderly range of intelligence scores by occupation; laborers averaged a C-, while engineer officers rated an A. Officer candidates who scored low

on the test proved unable to survive the three-month training required for a commission, while those who scored in the very superior range almost never failed (Hepner, 1940).

Douglas Fryer developed similar data for vocational guidance; business executives were in his top category, and minor executives in the next highest category (Fryer, 1922). Clearly intelligence tests ought to have been effective selection tools for potential managers, but initial experiments were not very successful in differentiating managers beyond a minimum score (Hollingworth & Poffenberger, 1917). Tests for specific aptitudes were also tried, but managers did not score as high as specialists in the various areas, leading to the conclusion that executives have superior all-around abilities rather than specific aptitudes (Mason & Cleeton, 1934).

There soon developed the belief that "attitudes count more than aptitudes" (Mason, et al., 1934). Psychologists recognized the need for valid measures of personality and temperament (Beckman & Levine, 1930). They hastened to disclaim the popular character analysis approach (Hepner, 1940), and began to experiment with scales of traits like extraversion and ascendancy (Allport & Allport, 1928; Laird, 1936).

Foreman training began within industry during this period, with a focus on building social skills (Jacoby, 1985). There were many proponents of such training, for it fit with the developing social ethic (Baritz, 1960). However, the most recognized catalyst was the Hawthorne studies, which took place at a Western Electric plant near Chicago between 1924 and 1933. The studies began with a Taylorish interest in lighting, but they evolved into investigations that emphasized the importance of the informal group and the relationship between the workers and the supervisor (Roethlisberger & Dickson, 1939). Isolated with the study group in the relay assembly room was a researcher, not a supervisor (Greenwood, Bolton & Greenwood, 1983). Nevertheless, the interpersonal and listening role of a supervisor was spotlighted, and interviews with Hawthorne workers provided material for supervisory training conferences. The Hawthorne research supported the belief that attitudes were important, which helped to promulgate surveys (Baritz, 1960).

Management hoped that finding out what employees were feeling, and training supervisors in human relations, would forestall unionization. The unions were, naturally, cynical about the endeavor. They called the Hawthorne researchers "cow sociologists" -- contented workers give more milk (Baritz, 1960).

Bureaucracy (1946-1961)

The first world war made the world safe for democracy; the second made the world safe for bureaucracy. Our color metaphor for the period from 1946 until 1961 is blue. It represents the post-war need for peace and contentment, for calm and lasting values. Blue emphasizes tradition, loyalty, and orderliness (Lűscher, 1969). Just like bureaucracy.

External Environment, 1946-1961

The infrastructure took more steps forward during this era. Jets broke the sound barrier in 1947, computers were marketed by the 1950s, and the first transatlantic telephone cable was laid in 1956. Goods-production occupied a greater proportion than ever (35%) of the work force in 1950 (see Figure 1). Service-production (occupying 51%) expanded even more, while the agriculture sector shrunk to 13% of the work force. Unions continued to gain members during the war, but the Taft-Hartley Act of 1947 restricted their powers.

The post-war years brought a massive exodus to the suburbs and encouraged family values (Howard & Bray, 1988), in line with our blue theme. It also resulted in the great baby boom. Social critics began to decry over-attention to the social group, a culmination of the human relations movement. Books such as *The Organization Man* (Whyte, 1956) railed against the quest for security under the protection of the big organization. Psychologist David McClelland found a big shift between 1925 and 1950 in individual motives, with need for achievement receding, and need for affiliation rising (McClelland, 1961). We had gone from Andrew Carnegie to Dale Carnegie, striving to win friends and influence people.

Organizational Environment, 1946-1961

Large organizations and mass production dominated the bureaucratic era. Consumers were enticed with splashy and colorful goods, such as the automobiles that made suburban life possible. Organizations diversified their products, created divisional structures, and expected their managers to direct operations on a larger scale than ever before (Chandler, 1962). Nearly 9% of workers were managers in 1950 (see Figure 2). Other white collar workers constituted another 28%. The work force was almost 3/4 men, while women tended households and raised families (Census, 1975).

By 1950, most organizations were run by professional managers. Only 10% of top executives were entrepreneurs, and 4/5 had been promoted from within their own organizations. CEOs now resembled gray eminences rather than the flamboyant, colorful figures at the turn of the century. The CEO was much less likely to take the initiative in the age of bureaucracy. Rather, he approved decisions flowing upward from subordinates, persuaded others to cooperate, and participated in group actions (Newcomer, 1955).

Perspectives on the Manager's Job, 1946-1961

The growing importance of management stimulated professional interest in the manager's job and in leadership (Ghiselli, 1969). Reviewing the literature on leader traits, Ralph Stogdill found some consistencies, but he concluded that it would be more profitable to study leader behaviors in different situations (Stogdill, 1948). There were precedents for such research from Kurt Lewin and his colleagues, who had investigated the outcomes of leader-follower interactions when the leader assumed an autocratic, democratic, or laissez-faire style (Lewin, Lippitt & White, 1939).

A series of studies on leadership behavior began at Ohio State in the 1940s under the direction of Carroll Shartle (Bass, 1990; Shartle, 1950). Stogdill was the associate director, and other psychologists contributed to this extensive effort, including John Hemphill and Edwin Fleishman. Through factor analysis methods, a number of leader behaviors were uncovered, but the two most prominent were consideration and initiating structure (Fleishman, 1973). In other words, human relations are important, but don't neglect the task.

Coincident with the Ohio State research, Bernard Bass began studies of the leaderless group discussion. He watched the emergence of leaders, and learned that oral communications skills and aggressiveness paid off (Bass, 1949).

Another train of research began after the war at Carnegie Institute, under the leadership of Herbert Simon. Although classic models of management, such as Henri Fayol's, suggested an orderly process of decision-making, Simon and his colleagues demonstrated that there were limits on rationality (March & Simon, 1958; Simon, 1947). Guest reported that a foreman averaged one activity every 56 seconds, further shattering the ideal of the methodical manager (Guest, 1956).

Psychological Applications, 1946-1961

The GI Bill supported many ex-servicemen through college, and a bachelor's degree became a prerequisite to middle and higher management (Newcomer, 1955). Two investigations in 1959 sharply criticized business education as too practical and unscientific, and recommended the incorporation of core disciplines, including behavioral science (Gordon & Howell, 1959; Pierson, 1959). I-O psychologists began to migrate to business school faculties, assuring that future managers would be exposed to psychological theory and research.

Numerous tests were used to select personnel during the era of bureaucracy; those applied to management were mostly for entry into lower levels. Interviews, biodata, and a wide variety of intelligence and personality tests were adopted by many organizations (Scott, et al., 1949). Unfortunately, many tests were not subjected to job-related validation research.

Formal training was still mostly for foremen (Baritz, 1960), but the bureaucracy era marked the beginning of large company training programs for higher-level managers. General Electric pioneered a major undertaking at Crotonville, New York in 1954. A review of organizational training methods noted that lectures, case studies, and some role playing were used (McGehee & Thayer, 1961).

Attitude research gained in popularity in the 1940s (Baritz, 1960), but by the mid-1950s a review of research concluded that the happy worker was not necessarily the most productive worker (Brayfield & Crockett, 1955). "Cow sociology" didn't work. Nevertheless, human relations remained a focus of training, and there were some attempts at attitude change. One method was sensitivity training, which came under fire for being highly emotional and intrusive.

Challenges to Authority, 1962-1979

The years 1962 to 1979 saw numerous challenges to authority. This era is symbolized by the color purple, which means highly rhetorical and profane. There was also a violet side to this period, represented in the hippie counterculture. Violet connotes intuition and sensitivity, as well as avoidance of responsibility (Lűscher, 1969).

External Environment, 1962-1979

The challenge to authority began with civil rights demonstrations by blacks, who had long been denied equality in the American way of life. Martin Luther King preached non-violence, but black power advocates were not so gentle. Other minorities protested for brown power or red power. Another revolutionary treatise depicted the social ethic that had left women out of the mainstream, raising their consciousness and ire (Friedan, 1963). The baby boom generation, spawned during the family-worshipping bureaucracy era, rebelled against everything they saw as oppressive authority (Howard, et al., 1988).

On the violet side of the theme, the hippie counterculture spurned Western rationality and sought to enlarge their emotional side, aided by meditation, drugs, and rock music. Seeking new values, they and many others turned inward (Howard, et al., 1988). The human potential movement drew sustenance from the theories of psychologists such as Abraham Maslow, who emphasized self-actualization (Maslow, 1954). The 1970s became the "Me Decade" (Lasch, 1978).

The Civil Rights Act of 1964, signed by President Lyndon Johnson, codified the claims to equal rights by disadvantaged groups. Title VII set up the Equal Employment Opportunity Commission to enforce laws against discrimination.

Organizational Environment, 1962-1979

More women began to work outside the home for wages; by 1970 they represented 38% of the work force and almost 17% of managers (Census, 1975). Women sought better jobs through education, and by the end of the 1970s they equaled men in numbers of bachelor's degrees and business majors (Census, 1991). The growing service-producing sector of the economy (see Figure 1) offered office jobs that were traditionally considered more suitable for women.

Companies instituted affirmative action to bring minorities and women into jobs they had heretofore been denied. The fairness of employment testing was challenged in various court cases, and psychologists hastened to validate the plethora of tests that had been casually adopted in the bureaucratic era.

Perspectives on the Manager's Job, 1962-1979

Research and practice related to management grew enough to warrant several extensive reviews (Campbell, Dunnette, Lawler & Weick, 1970; Ghiselli, 1971; Korman, 1968). New observations of the manager's job showed that it was highly verbal, just as Craig had stipulated in the 1920s. Managers apparently spent most of their time talking -- giving, sending, and receiving information, and mostly face-to-face (Horne & Lupton, 1965). The job was also shown to be demanding and erratic. Henry Mintzberg reported that managers spent fewer than 9 minutes per task (Mintzberg, 1973), echoing Guest's earlier observations about foremen (Guest, 1956).

Several researchers affiliated with the University of Michigan initiated studies of participative management, following Lewin's work from the late 1930s and the 1940s.
Rensis Likert propounded the superiority of what he called he called System 4 (Likert, 1961; Likert, 1967), similar in spirit to Douglas McGregor's Theory Y (McGregor, 1960). An early experiment in participation at Harwood Manufacturing, an apparel factory (Coch & French, 1948) led to more ambitious undertakings after Harwood merged with Weldon Manufacturing in 1962 (Marrow, Bowers & Seashore, 1967).

Another line of research rejected "one best way," whether scientific management or participative management (Van Fleet & Yukl, 1986). Fred Fiedler proposed a contingency theory of leadership, which he related to an individual difference measure (Fiedler, 1964).
Robert House advanced a path-goal theory of leadership, using the expectancy theory of motivation as a starting point (House, 1971). Vroom and Yetton offered another contingency model that indicated when it was appropriate to use a participative style as opposed to consultation or a more directive approach (Vroom & Yetton, 1973).

Still another line of leadership research looked at reciprocal influence between leaders and followers. Edwin Hollander had been interested in interpersonal perceptions from the time he used peer ratings to study the leadership effectiveness of naval cadets in the early 1950s (Hollander, 1992). He later spelled out his idiosyncracy credit model, whereby leaders earn standing in the eyes of their followers that provides latitude for innovation (Hollander, 1958). George Graen's work on vertical dyads and leader-member exchange demonstrated that all followers are not the same in the eyes of the leader (Graen & Schiemann, 1978). To paraphrase the Smothers Brothers comedy team, the boss likes you best.

Psychological Applications, 1962-1979

Our favorite selection method grew out of the work of Henry Murray. At Harvard in the 1930s, he developed the idea of using multiple techniques and multiple evaluators to study individual personalities, with judgments pooled in a process called a diagnostic council (Murray, 1938). He improved his process with simulations to select spies for the Office of Strategic Services during World War II (OSS Staff, 1948). The method was called an assessment center.

Douglas Bray, hired by AT&T in 1956 to study the development of telephone company managers, adapted Murray's method to business and developed the first management assessment center. Management and leadership were now viewed as a process, and the assessment center

emphasized behavior rather than traits. Bray selected and developed exercises to measure what became known as dimensions, or characteristics important for managerial success. The dimensions included the kind of functions delineated by Henri Fayol, as well as other qualities surfacing in the psychological literature. A later factor analysis placed the 26 dimensions into 7 major categories -- 3 concerned with abilities (administrative, interpersonal, and cognitive); 2 motivational (ambition and work involvement); and 2 related to personality or temperament (stability and independence) (Bray & Grant, 1966).

The exercises included various simulations of managerial work to facilitate the exhibition of key behaviors. Bray modified the leaderless group discussion developed by Bass and added an in-basket; John Hemphill contributed a business game using tinker toys. The simulations were supplemented with projective tests and other psychological techniques. Although the original study was basic research (Howard, et al., 1988), the method was quickly adopted within the Bell telephone companies for selection into management, and later research demonstrated its predictive validity (Bray, et al., 1966).

The assessment center might have stayed within the Bell System and a few other companies if not for the efforts of psychologist entrepreneurs. By founding organizations to market assessment center know-how and materials, William C. Byham, Cabot Jaffee, and others contributed to the adoption of assessment centers by thousands of companies. Moreover, assessment centers met court challenges of fairness to minorities -- they were even used by the EEOC to select their own administrators.

A major management development method developed during this period also had a behavioral emphasis. Behavior modeling for managers got its start in the late 1960s, when Melvin Sorcher, employed by General Electric, was seeking a method to change organizational climate. He approached a clinical psychologist colleague at Syracuse University, Arnold Goldstein, to inquire about methods for behavior change. Thus began his acquaintance with the work of Albert Bandura, who used social learning as a framework, and of Joseph Wolpe, whose work on desensitization demonstrated how behavior can be gradually shaped.

Sorcher borrowed from still more areas of psychology. From Leon Festinger's cognitive dissonance theory he knew that attitudes will support new behaviors if they can be changed; from self-esteem theory he saw incentives for change; and from Victor Vroom's expectancy theory he knew that expectations would drive behavior. Sorcher put the pieces of the puzzle together, and with Goldstein's help, developed a method for changing behavior that included imitation, practice, and reinforcement (M. Sorcher, personal communication, June 25, 1992).

Behavior modeling was first tried in GE to change the way old-line factory foremen supervised people. The method was remarkably successful and soon spread widely, again aided by consulting organizations such as Byham's. At AT&T, it was validated using assessment center simulations as a criterion.

Global Economy (1980 - present)

The manager's job changed again to compete in the global economy. The color metaphor here is yellow, which suggests uncertain change. Yellow presses forward toward the

new and modern, but in fits and starts. Yellow means developing and unformed (Lűscher, 1969). Radical changes are upon us in the global economy, and Americans don't yet know how we will fare.

External Environment, 1980-present

Many became aware of global competition at the opening of the 1980s. Oil was held hostage by an Arab cartel, the Japanese proved to have more fuel-efficient cars, and Chrysler's President Lee Iacocca asked Washington for a loan to save the company from bankruptcy.

By 1989 the United States was immersed in electronics, biotechnologies, advanced materials, and other high technologies. Almost 3/4 of the labor force worked in the service-producing sector of this post-industrial economy (see Figure 1).

Workers are now being replaced by a new kind of machine -- robots, made possible through advances in electronics. Microcomputers are ubiquitous, and executives can be found carrying notebook computers on the road. Satellites and fiberoptic cable can potentially connect us all, instantaneously.

Because transportation and communications have compressed time and space, competition is worldwide. Global competition requires new levels of quality and service. The U.S. is challenged in high technologies by Japan, Europe, and the Pacific Rim countries, and on the low end by third world countries that can offer labor at lesser wages.

As at the start of this century, American gates are open to new waves of immigration. The peak on the left side of the graph in Figure 3 occurred in 1907; nearly as high is the bar on the right for 1989. Most new arrivals are now Hispanics and Asians, and cultural and language disparities abound. The government continues to legislate personnel policies, with the Civil Rights Act of 1991 and the Americans with Disabilities Act.

Organizational Environment, 1980-present

Women were 45% of the work force in 1989 and almost 40% of the managers. However, they were seldom found at the top rungs of the hierarchy. Minorities also showed progress; blacks accounted for nearly 6% of managers and Hispanics 4%. Robots and other forms of automation reduced the need for manual labor (see Figure 2), and union membership declined. White collar jobs employed more workers than any other category in 1989, and the proportion of managers rose to 12.7% (Census, 1991).

But many businesses now see managers as unwanted fat. With information readily transmitted, there is less need for layers of supervision, and the inefficiencies created by the cubbyholes of traditional bureaucracies appear fatal for fast-paced global competition. Desiring to be more nimble, organizations downsize and restructure, especially the largest ones.

Perspectives on the Manager's Job, 1980-present

As organizations faced the survival challenges of global competition, attention was directed upwards toward the top executives. A survey of executives in four major world regions indicated that CEOs in the year 2000 will need more skills in formulating strategy and in human resources (Korn/Ferry & Business, 1989).

Persuasiveness was increasingly observed as a key characteristic for managers. John Kotter observed that general managers (those over several specialties) seldom give orders -- they request and persuade (Kotter, 1982). Another study found that networking and socializing related positively to success, but so did planning and coordinating (Luthans, Rosenkrantz & Hennessey, 1985). Thus Fayol's functions still hold, even in the fast-paced 1990s.

Leadership research and theory seemed to multiply exponentially (Bass, 1990). Several approaches emphasized multiple influences on leaders, including followers. Robert Lord and Karen Maher, drawing from social and cognitive psychology, explored the implicit leadership theories of followers (Lord & Maher, 1991). Retrospective interviews sought to identify the kinds of challenges that helped managers learn from experience (McCall, Lombardo & Morrison, 1988).

Our research at AT&T documented changes in managers as they age, move through different eras of history, and move up (or don't move up) the management hierarchy (Howard, et al., 1988). One discouraging finding was that foremen get more authoritarian as they get older; they may need eternal training in human relations skills. Fortunately, higher level managers become more open-minded, though more emotionally distant, a phenomenon dubbed "cool at the top" (Howard, 1984). Despite all the attention to processes, our research demonstrated that traits retain a core of stability across time and can account for some managerial behavior (Howard, et al., 1988). There is now a revival of personality research, which may lead to even more predictive power.

A recent theory of leadership that is both visionary and inspirational harks back to a type Weber defined over 70 years ago (Weber, 1947). House began writing about charismatic leadership in the 1970s (House, 1977), and he and his colleagues recently demonstrated that America's most effective presidents were able to inspire others in charismatic ways (House, Spangler & Woycke, 1991). Bass, following the lead of historian James McGregor Burns (Burns, 1978), conducted extensive research on the transcendent powers of transformational leadership, contrasted to the contingent reward methods of transactional leadership (Bass, 1985). In Hollander's terms, it's a matter of more leader intensity and follower arousal, with multiple idiosyncracy credits (Hollander, 1992). Women were found more likely to show transformational leadership qualities than men, which may work to their advantage (Bass & Avolio, 1992).

It seems no coincidence that the concepts of transformational and charismatic leadership have arisen now. Changes wrought by the information age are fundamental and staggering -- some use that overworked term "paradigm shift". There is a search everywhere for strong, heroic leaders to transform shaky economic, social, and political ways of life.

Psychological Applications, 1980-present

Early in this century, psychologists focused their attention on workers at the lowest levels. With time, interest has shifted to management, gradually moving to the top. Evidence is accumulating that the selection payoff is actually much greater for managers. The variance in performance between good and poor is much larger for management than for non-management. Moreover, intellectual abilities show stronger relationships to performance as job complexity increases (Schmidt & Hunter, 1992). Cognitive complexity also appears to grow in importance at higher levels of the management hierarchy (Jacobs & Jaques, 1990). Management has become so complex that those without a college education are very unlikely to get ahead. Business attracts nearly 1/4 of undergraduates (Census, 1991), and an MBA is often the route to the fast track.

Assessment centers continue both to select managers and to diagnose their developmental needs, but given the new organizational emphasis on speed and cutting costs, ways are being sought to make the method more cost-effective. New technology has facilitated computer scoring, video-based simulations, and videotaped assessment center performance for later evaluation by remote assessors (Byham, 1992).

Training and development of managers is now taking place on an unprecedented scale. Top managers attend conferences on strategic planning, international competence, and setting organizational values and goals. Managers at various levels are helped to deal with multiculturalism and diversity within the work force, often by sensitivity training, in a revival from the authority challenging era. At the lower levels, the emphasis is on empowerment of workers to get decision-making closer to the customer, and development of teams to elicit new ideas to promote efficiency and quality control.

Conclusions

This broad brush across the five eras of U.S. history leads to several conclusions about psychological perspectives about leaders and managers across time. Some people define their lessons in ABC's, but we have only A's.

1. Accumulate

The first A is that psychological perspectives accumulate across time. Not just within one line of research -- that's expected. As ideas and approaches concerning leaders and managers shifted, little pieces always remained from the previous cycle. Concepts were added, but few were subtracted. For example, psychologists turned away from intelligence tests for managers, and then from personality and temperament. Today both are considered useful.

2. Amplify

The second A is that perspectives amplify -- in at least three ways. The range of study expanded upwards from foremen to top executives (Katzell & Austin, in press). There was also

a shift from micro to macro views, adding both range and complexity. Managers were studied first as individuals, then as a part of groups with their followers, and then in relationship to the entire organization (Van Fleet, et al., 1986). New models of managerial behavior show multiple influences and contingencies.

Psychologists' applications have also amplified their impact, referred to recently as "Big Deal Practice" (Howard, 1991). In earlier eras, one consultant usually worked with one organization at a time. Today, large consulting firms hire hundreds of employees, translate their techniques into two dozen languages, and market worldwide. Assessment centers and behavior modeling are two prominent examples.

3. Await the Times

The third A in our lessons is that psychologists' perspectives await the times. Psychologists may have terrific ideas about managing, but organizations won't buy them until they feel some urgency to do so. A good example is participative management. When these techniques were first introduced, many managements were more concerned about losing their own power than with finding better production methods. Now participative management has been repackaged as empowerment or high involvement, and companies can see its payoff in meeting global competition.

Other perspectives await the times and are then rediscovered. Personality traits, for example. In the global economy managers must develop new ideas, cope with stress, and work with multicultural staffs; this suggests they need creativity, flexibility, and sensitivity. Rediscoveries of ideas demonstrate why we should always listen to the whispers of history. Like "power with, not power over," from Mary Parker Follett.

4. Advance in Crises

Our last A states that psychological perspectives advance in crises. We developed intelligence and aptitude tests during the first world war; and attitude measures, assessment centers, rating scales, and a host of other techniques during the second. Now we have an economic crisis, and psychologists are exploring ideas like empowerment and transformational leadership.

Let us hope that psychologists can continue uncovering the mysteries of management, and continue helping managers to do their jobs. Because in the final analysis, our fate is in their hands.

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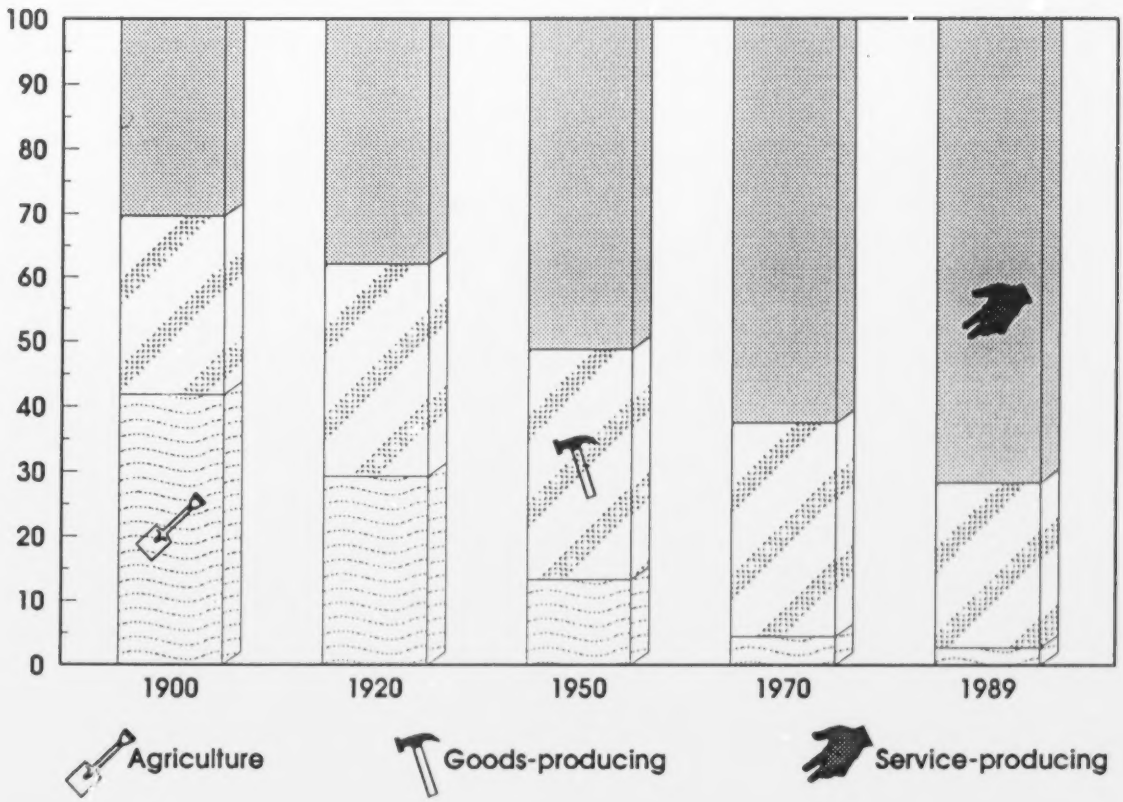
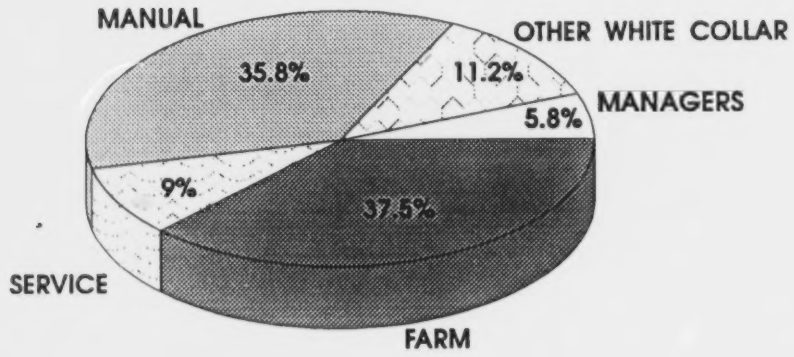
Figure 1
EMPLOYMENT BY INDUSTRY



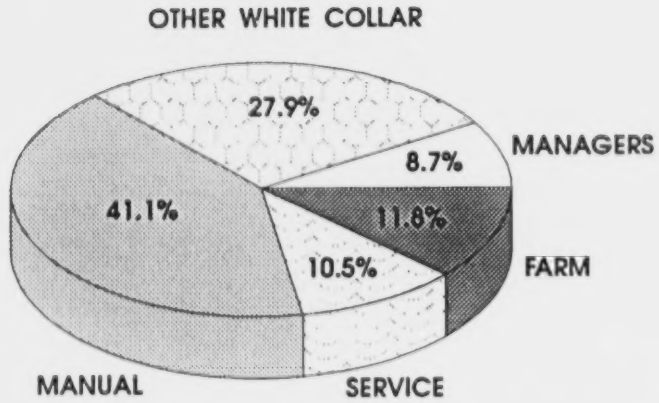
Source: Bureau of the Census

Figure 2
MAJOR OCCUPATIONS

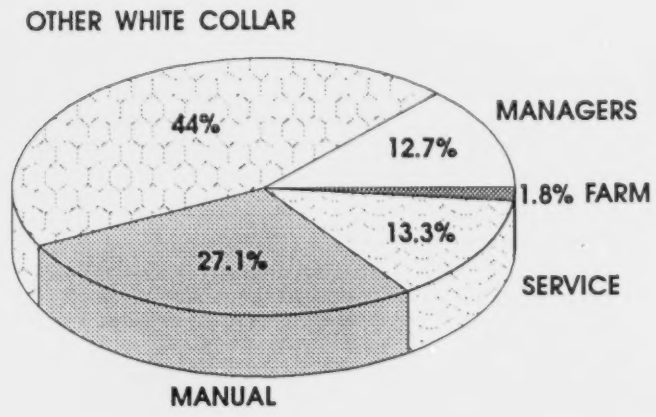
1900



1950



1989



Source: Bureau of the Census

Figure 3
IMMIGRATION TO U.S.

Source: Bureau of the Census